

WHAT IS CLAIMED IS:

1. A process for preparing a film, comprising:

providing a solution of an extruded starch product, said starch product having been prepared by a process comprising

providing a hydroxyalkyl starch, said starch being derivatized with a hydroxyalkyl substituent having from 2 to 6 carbon atoms; and

extruding said starch in an extruder, said extruder having a barrel, a die, and at least one rotating shaft, said barrel having at least first and second zones, said first zone being upstream from said second zone, the temperature in said first zone being insufficient to gelatinize said starch and the temperature in said second zone being sufficient to gelatinize said starch, said starch being extruded in the presence of total moisture in said barrel no greater than about 25% by weight of said starch, said process including the step of controlling the rotational speed of said shaft to impart a specific mechanical energy to said starch sufficient to result in a soluble extruded starch product that is capable of extrusion through said die at said rotational speed;

said solution having been prepared by mixing said starch product with water;

and

forming a film from said solution.

2. A process according to claim 1, the moisture in said barrel not having exceeded 22.5% by weight of said starch.

3. A process according to claim 1, the moisture in said barrel not having exceeded 20% by weight of said starch.

4. A process according to claim 1, the moisture in said barrel not having exceeded 17.5% by weight of said starch.
5. A process according to claim 1, wherein said solution includes a plasticizer.
6. A film formed in accordance with the process of claim 1.